

Grid Engine Portal Installation Guide

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The purpose of this document is to guide administrators in their installation of Grid Engine Portal (GEP) on the Bio-ClusterGrid. There are three parts to this guide. The first part describes the steps taken to install the Sun ONE Portal Server. The second part describes the steps taken to install the Gateway. The third and last part describes the steps taken to install the Grid Engine Portal integration package. The following instructions and screen shots illustrates the steps taken by the authors and does not take into account errors that may be encountered by the administrator using this guide.

PART 1 – To start installation of the Sun ONE Portal Server:

1. Log in to the Bio-ClusterGrid as a root user.
2. Open a console, type `cd /etc` and add the following to the hosts file using a text editor:

[ip address]	[hostname]	loghost	[fully qualified name]
E.g. 192.168.0.126	v120	loghost	v120.sun.apstc
3. Type `cd /export/GridEnginePortal/ps6.0`
4. Type `./pssetup` then accept the licensing agreement by answering **yes** to the **Do you accept?** Question.
5. Choose **option 4** in the pssetup script as shown in Screen 1 to install the **Portal Server**.
6. If the default settings are listed by the script, answer **no** to the **Use these settings?** question. The following example dialog as shown in Screens 1 and 2 will occur.

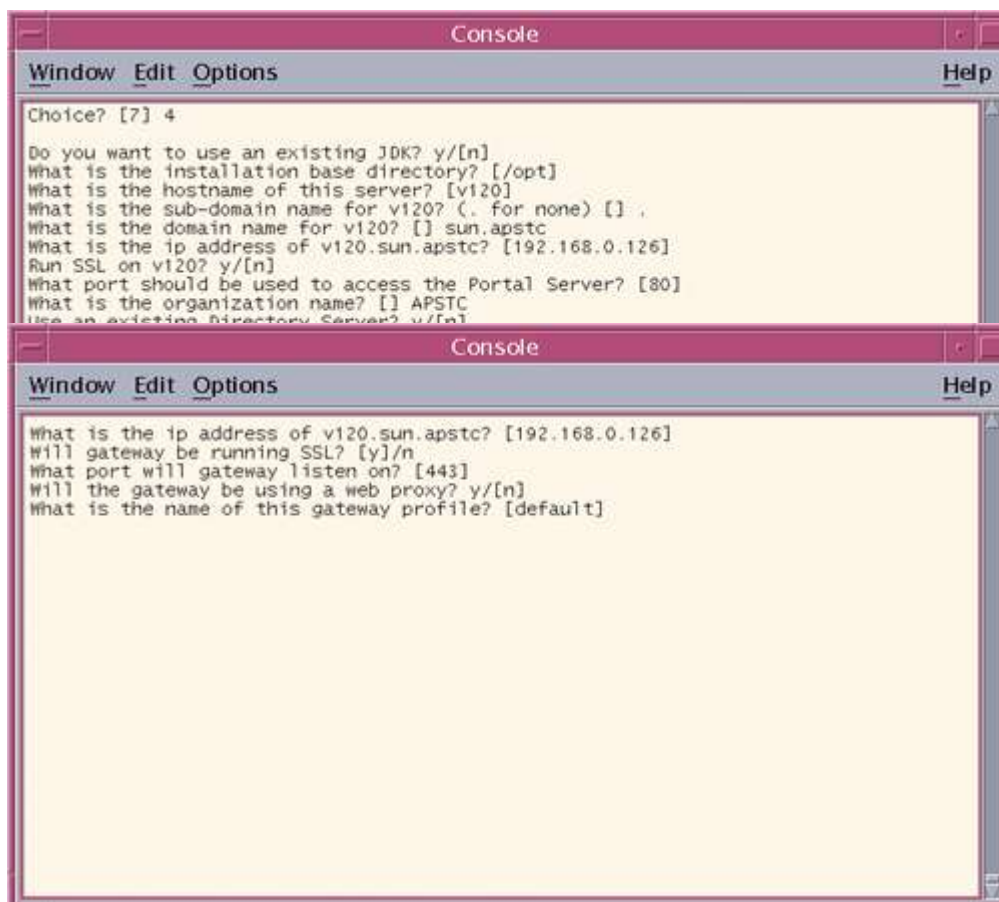
Note that for the question on JDK below, the recommended version of JDK is 1.31.1_04. Using other versions may result in instability or lowered performance.

For the purposes of this installation guide, it will be assumed that the Sun ONE Portal Server components will be installed on a server with a fully qualified name of v120.sun.apstc, having an IP address of 192.168.0.126. Most defaults can be taken except for hostname, sub-domain name, domain name, IP address, organization name and passphrase which need to be modified depending on your own environment. The dialog for this portion of the installation is as follows:

```

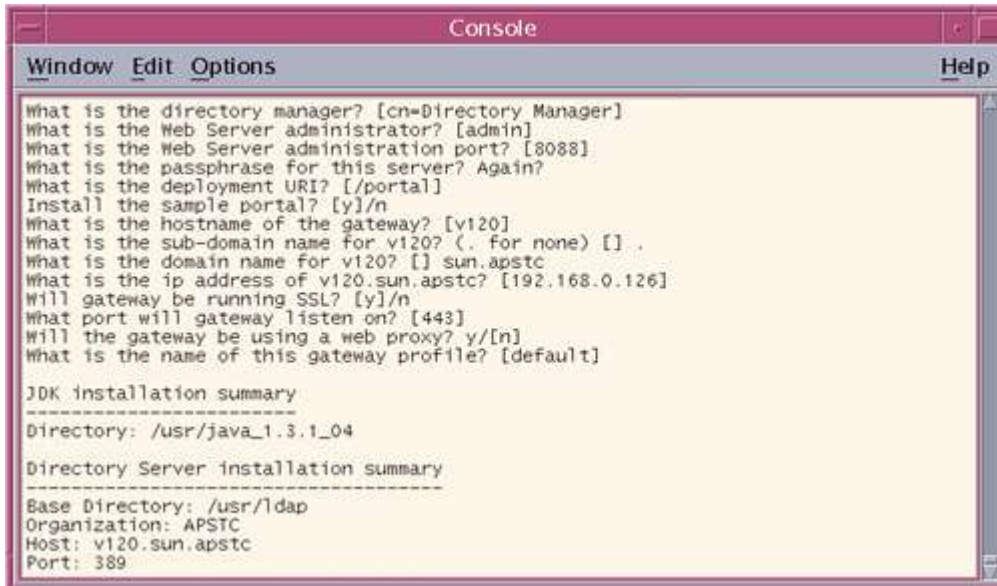
Do you want to use an existing JDK? n
What is the installation base directory? /opt
What is the hostname of this server? v120
What is the sub-domain name for v120? .
What is the domain name for v120? sun.apstc
What is the ip address of v120.sun.apstc? 192.168.0.126
Run SSL on v120? n
What port should be used to access the Portal Server? 80
What is the organization name? APSTC
Use an existing Directory Server? n
What is the Directory Server base directory? /usr/ldap
What port should be used to access the Directory Server? 389
What is the Directory Server administration port? 8900
What is the root suffix of the directory tree? o=isp
What is the directory manager? cn=Directory Manager
What is the Web Server administrator? admin
What is the Web Server Administration port? 8088
What is the passphrase for this server? *****
Again? *****
What is the deployment URI? /portal
Install the sample portal? y
What is the hostname of the gateway? v120
What is the sub-domain name for v120? .
What is the domain name for v120? sun.apstc
What is the ip address of v120.sun.apstc? 192.168.0.126
Will gateway be running SSL? y
What port will gateway listen on? 443
Will the gateway be using a web proxy? n
What is the name of the gateway profile? Default

```



Screen 2

7. The settings that you have just supplied will then be listed as shown in Screens 3 - 5. Answer **yes** to **Use these settings?** as shown in Screen 5. If you answered no to the question regarding JDK, a new JDK will then be installed as shown in Screen 6. Then the Identity Server, the Portal Server and Secure Remote Access support will be installed. This process can take 25 to 30 minutes. Ignore any uxwdog errors that might occur during the installation; they will not re-occur after installation.



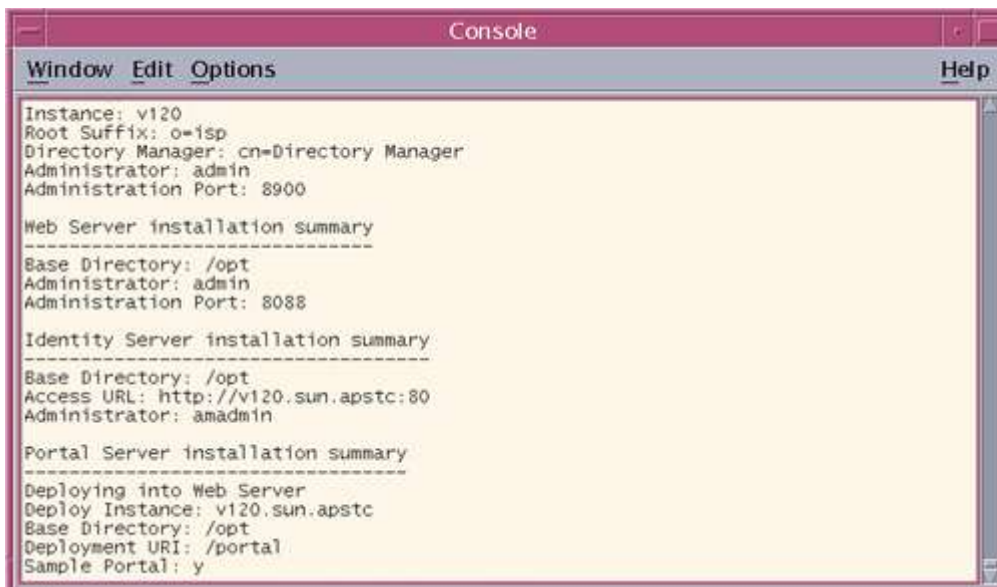
```
Console
Window Edit Options Help

What is the directory manager? [cn=Directory Manager]
What is the Web Server administrator? [admin]
What is the Web Server administration port? [8088]
What is the passphrase for this server? Again?
What is the deployment URI? [/portal]
Install the sample portal? [y]/n
What is the hostname of the gateway? [v120]
What is the sub-domain name for v120? (. for none) [] .
What is the domain name for v120? [] sun.apstc
What is the ip address of v120.sun.apstc? [192.168.0.126]
Will gateway be running SSL? [y]/n
What port will gateway listen on? [443]
Will the gateway be using a web proxy? y/[n]
What is the name of this gateway profile? [default]

JDK installation summary
-----
Directory: /usr/java_1.3.1_04

Directory Server installation summary
-----
Base Directory: /usr/ldap
Organization: APSTC
Host: v120.sun.apstc
Port: 389
```

Screen 3



```
Console
Window Edit Options Help

Instance: v120
Root Suffix: o=isp
Directory Manager: cn=Directory Manager
Administrator: admin
Administration Port: 8900

Web Server installation summary
-----
Base Directory: /opt
Administrator: admin
Administration Port: 8088

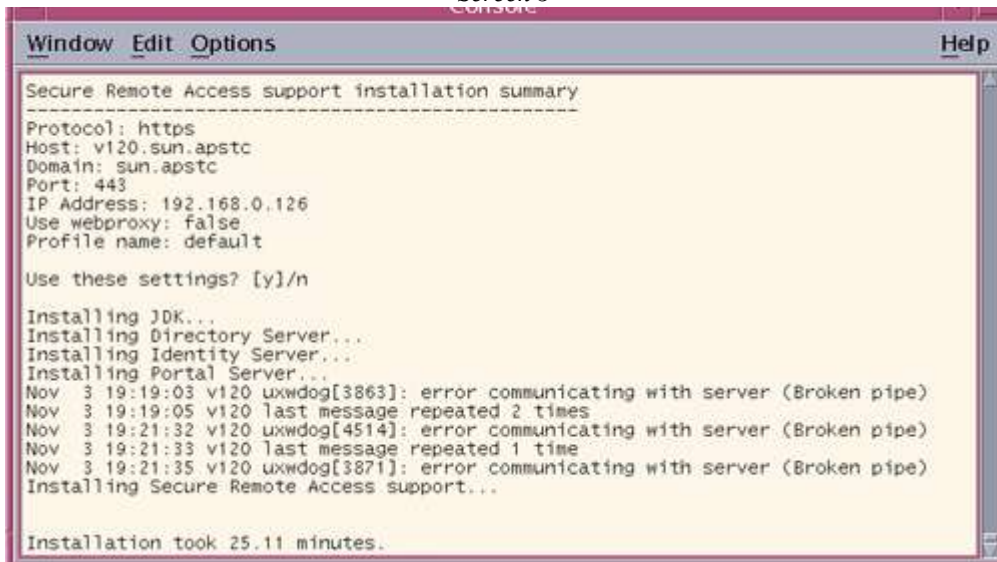
Identity Server installation summary
-----
Base Directory: /opt
Access URL: http://v120.sun.apstc:80
Administrator: amadmin

Portal Server installation summary
-----
Deploying into Web Server
Deploy Instance: v120.sun.apstc
Base Directory: /opt
Deployment URI: /portal
Sample Portal: y
```

Screen 4



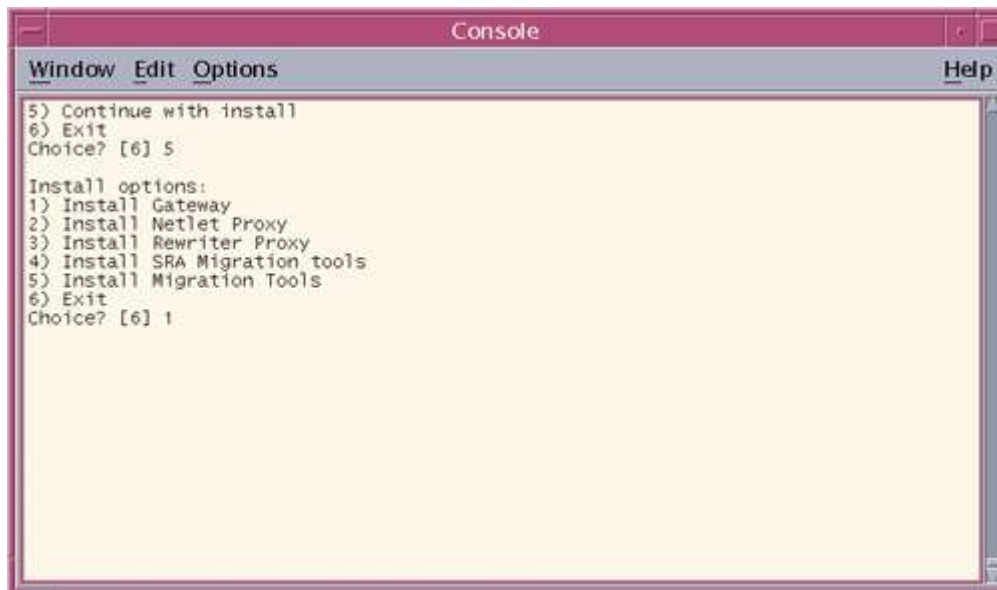
Screen 5



Screen 6

PART 2 – To start installation of the Gateway:

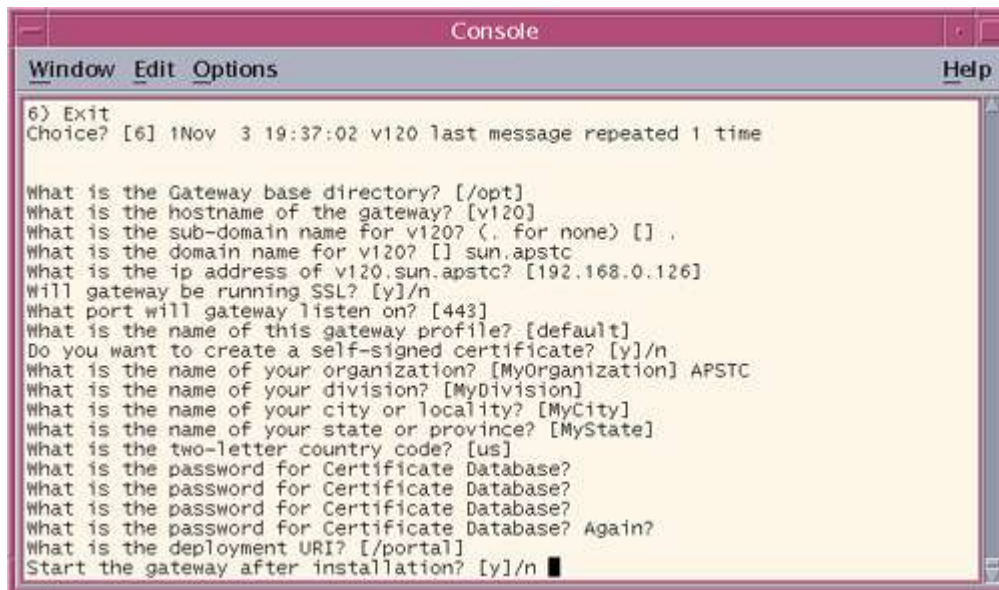
1. Choose **option 1** in the pssetup script as shown in Screen 7 to install the **Gateway**.



Screen 7

2. If the default settings are listed by the script, answer **no** to the **Use these settings?** question. The following example dialog as shown in Screen 8 will occur:

What is the gateway base directory?	/opt
What is the hostname of the gateway?	v120
What is the sub-domain name for v120?	.
What is the domain name for v120?	sun.apstc
What is the ip address of v120.sun.apstc?	192.168.0.126
Will gateway be running SSL?	y
What port will gateway listen on?	443
What is the name of this gateway profile?	default
Do you want to create a self-signed certificate?	y
What is the name of your organization?	APSTC
What is the name of your division?	MyDivision
What is the name of your city or locality?	MyCity
What is the name of your state or province?	MyState
What is the two-letter country code?	US
What is the password for Certificate Database?	*****
Again?	*****
What is the deployment URI?	/portal
Start the gateway after installation?	y

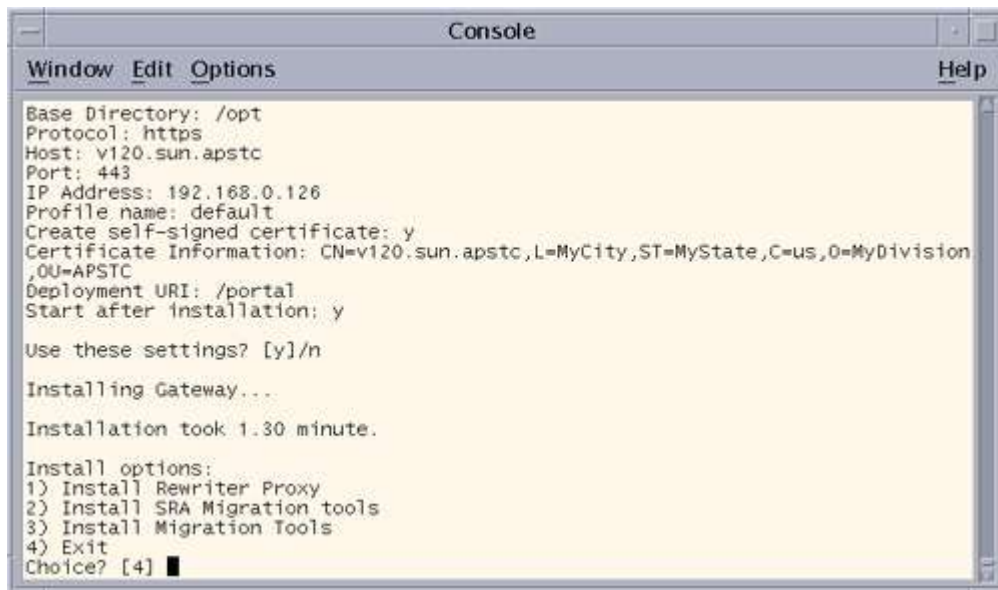


```
6) Exit
Choice? [6] 1Nov 3 19:37:02 v120 last message repeated 1 time

What is the Gateway base directory? [/opt]
What is the hostname of the gateway? [v120]
What is the sub-domain name for v120? (. for none) [] .
What is the domain name for v120? [] sun.apstc
What is the ip address of v120.sun.apstc? [192.168.0.126]
Will gateway be running SSL? [y]/n
What port will gateway listen on? [443]
What is the name of this gateway profile? [default]
Do you want to create a self-signed certificate? [y]/n
What is the name of your organization? [MyOrganization] APSTC
What is the name of your division? [MyDivision]
What is the name of your city or locality? [MyCity]
What is the name of your state or province? [MyState]
What is the two-letter country code? [us]
What is the password for Certificate Database?
What is the password for Certificate Database?
What is the password for Certificate Database?
What is the password for Certificate Database? Again?
What is the deployment URI? [/portal]
Start the gateway after installation? [y]/n █
```

Screen 8

3. The settings that you have just supplied will then be listed. Answer **yes** to **Use these settings?** as shown in Screen 9. Once the installation has completed, you can exit from the pssetup script.



```
Console
Window Edit Options Help
Base Directory: /opt
Protocol: https
Host: v120.sun.apstc
Port: 443
IP Address: 192.168.0.126
Profile name: default
Create self-signed certificate: y
Certificate Information: CN=v120.sun.apstc,L=MyCity,ST=MyState,C=us,O=MyDivision,OU=APSTC
Deployment URI: /portal
Start after installation: y

Use these settings? [y]/n

Installing Gateway...

Installation took 1.30 minute.

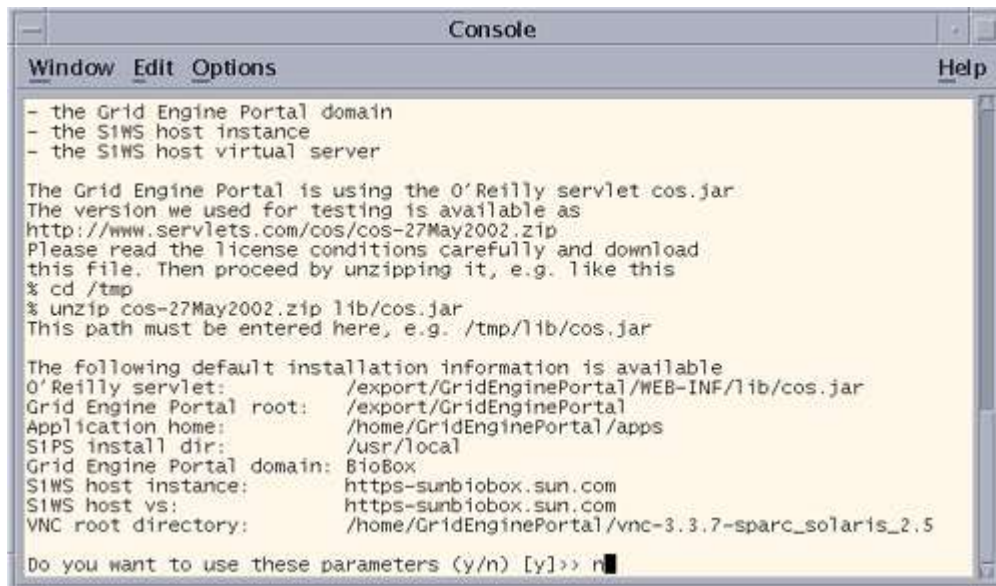
Install options:
1) Install Rewriter Proxy
2) Install SRA Migration tools
3) Install Migration Tools
4) Exit
Choice? [4]
```

Screen 9

PART 3 – To start installation of the Grid Engine Portal integration package:

1. Open a console, type `cd /export/GridEnginePortal/`
2. Type `setenv COMMD_PORT 536`
3. Edit the file 'install' and replace the word “sunbiobox” with “\$ADMINPW”
4. Type `./install -gp`

5. As shown in Screen 10, do not use the default parameters. If default choice is [n], press RETURN or ENTER on the keyboard. Otherwise, type n then press RETURN or ENTER on the keyboard.



```
Console
Window Edit Options Help

- the Grid Engine Portal domain
- the SIWS host instance
- the SIWS host virtual server

The Grid Engine Portal is using the O'Reilly servlet cos.jar
The version we used for testing is available as
http://www.servlets.com/cos/cos-27May2002.zip
Please read the license conditions carefully and download
this file. Then proceed by unzipping it, e.g. like this
% cd /tmp
% unzip cos-27May2002.zip lib/cos.jar
This path must be entered here, e.g. /tmp/lib/cos.jar

The following default installation information is available
O'Reilly servlet:      /export/GridEnginePortal/WEB-INF/lib/cos.jar
Grid Engine Portal root: /export/GridEnginePortal
Application home:      /home/GridEnginePortal/apps
SIWS install dir:      /usr/local
Grid Engine Portal domain: BioBox
SIWS host instance:    https-sunbiobox.sun.com
SIWS host vs:          https-sunbiobox.sun.com
VNC root directory:    /home/GridEnginePortal/vnc-3.3.7-sparc_solaris_2.5

Do you want to use these parameters (y/n) [y]>> n
```

Screen 10

6. At the prompt Please enter the O'Reilly servlet path, type /export/GridEnginePortal/WEB-INF/lib/cos.jar as shown in Screen 11.
7. At the prompt Please enter the Application home path, type /home/GridEnginePortal/apps as shown in Screen 11.
8. At the prompt Please enter the SIPS install directory, type /opt as shown in Screen 11.
9. At the prompt Please enter the Grid Engine Portal domain, type your organization name e.g. APSTC as shown in Screen 11.
10. At the prompt Please enter the S1WS host instance, type https-[fully qualified name] e.g. https-v120.sun.apstc as shown in Screen 11.
11. At the prompt Please enter the S1WS virtual server, type https-[fully qualified name] e.g. https-v120.sun.apstc as shown in Screen 11.
12. Enter choice to use VNC as shown in Screen 11. If default choice is [y], press RETURN or ENTER on the keyboard. Otherwise, type y then press RETURN or ENTER on the keyboard.
13. Enter the VNC root directory /home/GridEnginePortal/vnc-3.3.7-sparc_solaris_2.5 as shown in Screen 11.

```

Console
Window Edit Options Help

O'Reilly servlet:      /export/GridEnginePortal/WEB-INF/lib/cos.jar
Grid Engine Portal root: /export/GridEnginePortal
Application home:      /home/GridEnginePortal/apps
SIPS install dir:      /usr/local
Grid Engine Portal domain: BioBox
S1WS host instance:    https-sunbiobox.sun.com
S1WS host vs:          https-sunbiobox.sun.com
VNC root directory:    /home/GridEnginePortal/vnc-3.3.7-sparc_solaris_2.5

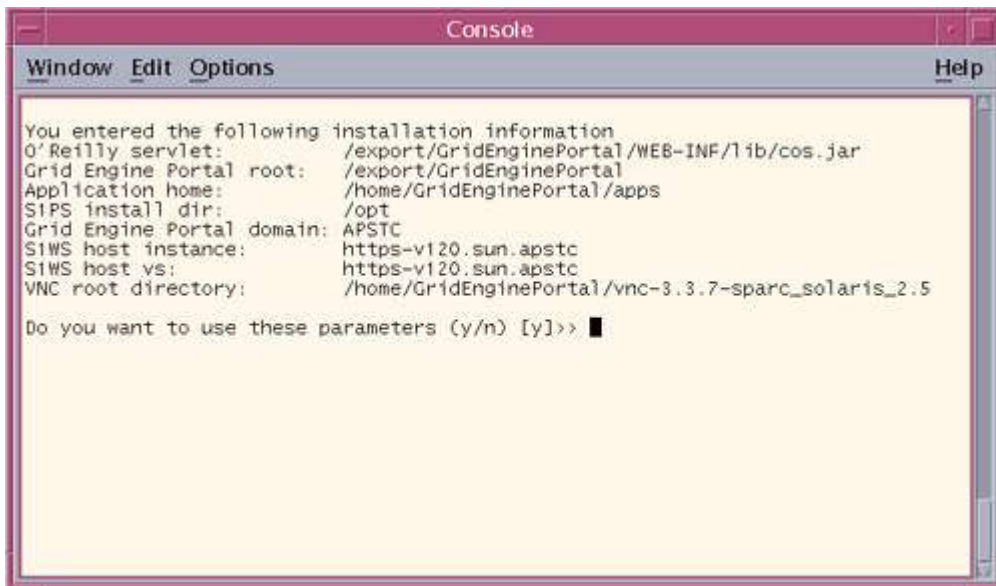
Do you want to use these parameters (y/n) [y]>> n

Please enter the O'Reilly servlet path >> /export/GridEnginePortal/WEB-INF/lib/cos.jar
Please enter the Application home path >> /home/GridEnginePortal/apps
Please enter the SIPS install directory ( /opt ) >> /opt
Please enter the Grid Engine Portal domain ( ) >> APSTC
Please enter the S1WS host instance ( https-v120. ) >> https-v120.sun.apstc
Please enter the S1WS virtual server ( https-v120.sun.apstc ) >> https-v120.sun.apstc
Do you want to use VNC (y/n) [n]>> y
Please enter the VNC root directory >> /home/GridEnginePortal/vnc-3.3.7-sparc_solaris_2.5

```

Screen 11

14. Use the parameters as shown in Screen 12. If default choice is [y], press RETURN or ENTER on the keyboard. Otherwise, type y then press RETURN or ENTER on the keyboard.



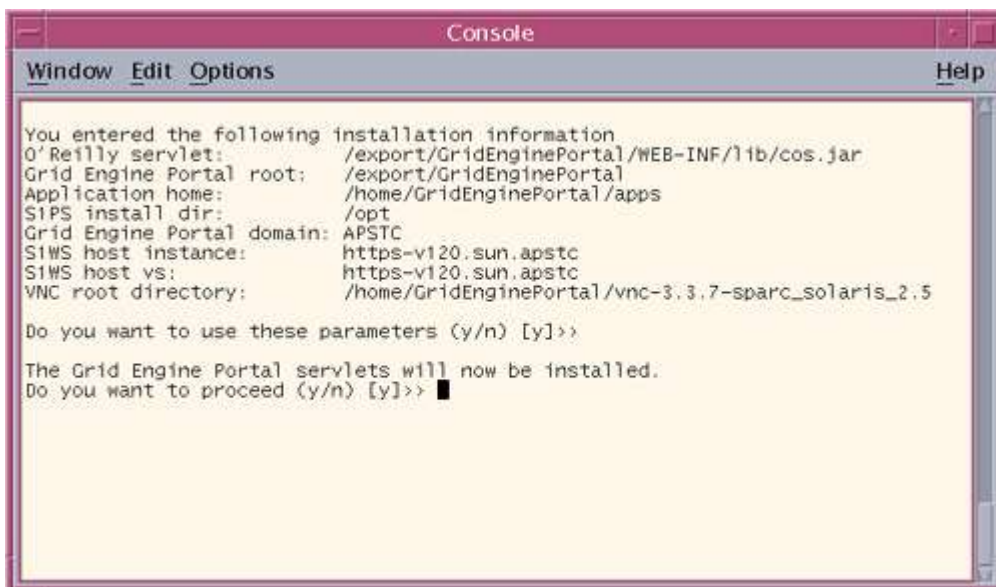
```
Console
Window Edit Options Help

You entered the following installation information
O'Reilly servlet:      /export/GridEnginePortal/WEB-INF/lib/cos.jar
Grid Engine Portal root: /export/GridEnginePortal
Application home:      /home/GridEnginePortal/apps
SIPS install dir:      /opt
Grid Engine Portal domain: APSTC
SIWS host instance:    https-v120.sun.apstc
SIWS host vs:          https-v120.sun.apstc
VNC root directory:    /home/GridEnginePortal/vnc-3.3.7-sparc_solaris_2.5

Do you want to use these parameters (y/n) [y]>> █
```

Screen 12

15. Install Grid Engine Portal servlets as shown in Screen 13. If default choice is [y], press RETURN or ENTER on the keyboard. Otherwise, type y then press RETURN or ENTER on the keyboard.



```
Console
Window Edit Options Help

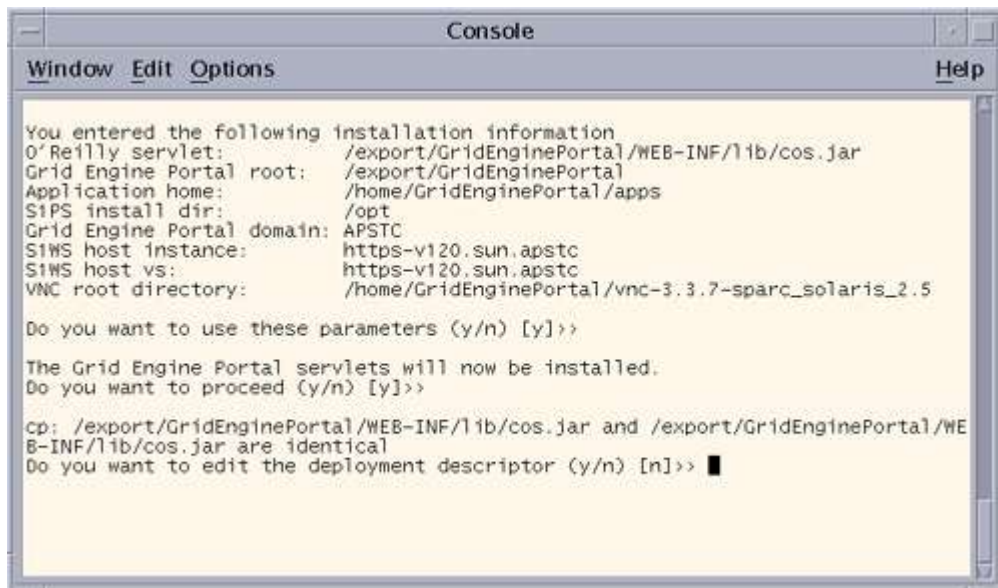
You entered the following installation information
O'Reilly servlet:      /export/GridEnginePortal/WEB-INF/lib/cos.jar
Grid Engine Portal root: /export/GridEnginePortal
Application home:      /home/GridEnginePortal/apps
SIPS install dir:      /opt
Grid Engine Portal domain: APSTC
SIWS host instance:    https-v120.sun.apstc
SIWS host vs:          https-v120.sun.apstc
VNC root directory:    /home/GridEnginePortal/vnc-3.3.7-sparc_solaris_2.5

Do you want to use these parameters (y/n) [y]>>

The Grid Engine Portal servlets will now be installed.
Do you want to proceed (y/n) [y]>> █
```

Screen 13

16. As shown in Screen 14, do not edit the deployment descriptor. If default choice is [n], press RETURN or ENTER on the keyboard. Otherwise, type n then press RETURN or ENTER on the keyboard.



```
Console
Window Edit Options Help

You entered the following installation information
O'Reilly servlet:      /export/GridEnginePortal/WEB-INF/lib/cos.jar
Grid Engine Portal root: /export/GridEnginePortal
Application home:      /home/GridEnginePortal/apps
SIPS install dir:      /opt
Grid Engine Portal domain: APSTC
SWS host instance:     https-v120.sun.apstc
SWS host vs:           https-v120.sun.apstc
VNC root directory:    /home/GridEnginePortal/vnc-3.3.7-sparc_solaris_2.5

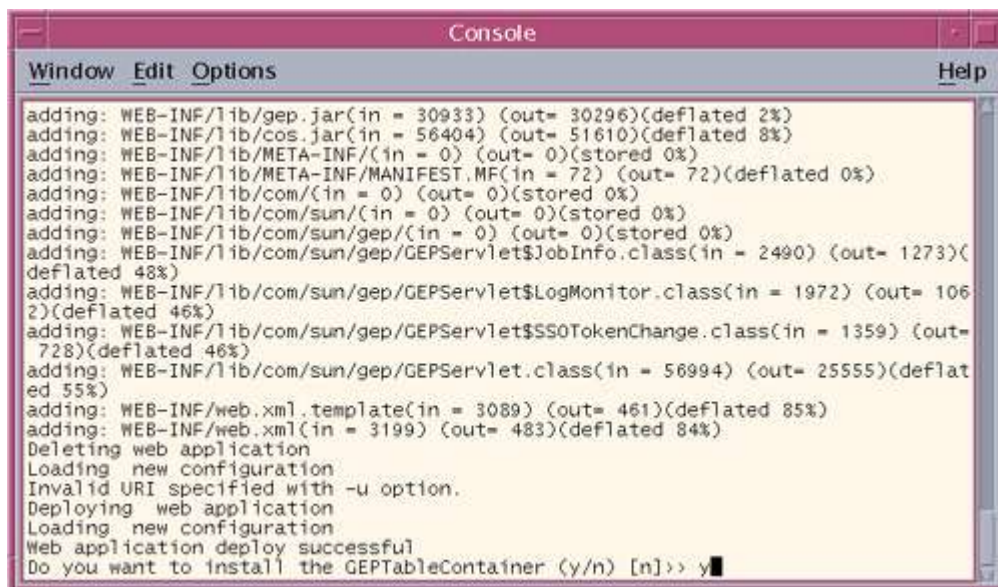
Do you want to use these parameters (y/n) [y]>>

The Grid Engine Portal servlets will now be installed.
Do you want to proceed (y/n) [y]>>

cp: /export/GridEnginePortal/WEB-INF/lib/cos.jar and /export/GridEnginePortal/WEB-INF/lib/cos.jar are identical
Do you want to edit the deployment descriptor (y/n) [n]>> █
```

Screen 14

17. Install the GEPTTableContainer as shown in Screen 15. If default choice is [y], press RETURN or ENTER on the keyboard. Otherwise, type y then press RETURN or ENTER on the keyboard.

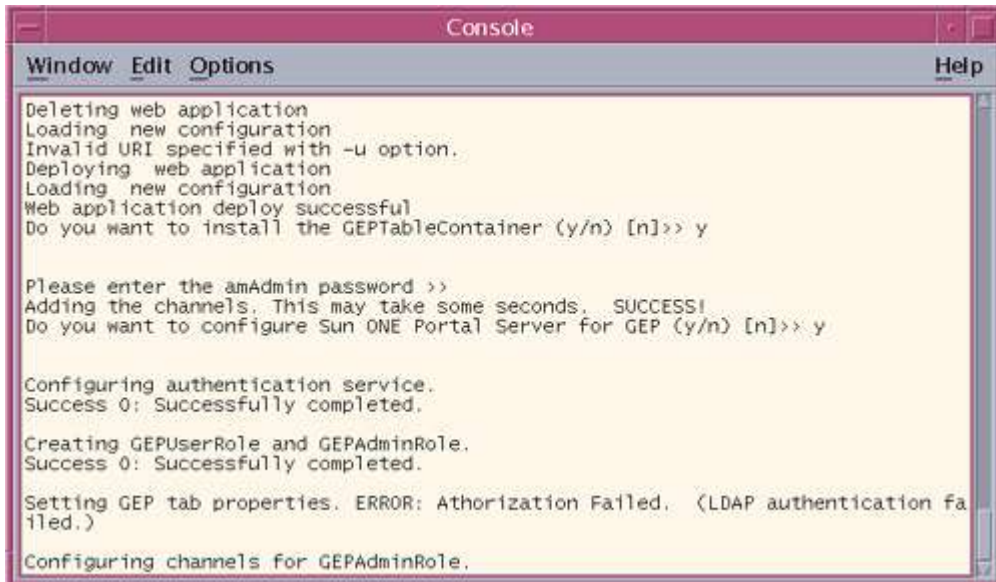


```
Console
Window Edit Options Help

adding: WEB-INF/lib/gep.jar(in = 30933) (out= 30296)(deflated 2%)
adding: WEB-INF/lib/cos.jar(in = 56404) (out= 51610)(deflated 8%)
adding: WEB-INF/lib/META-INF/(in = 0) (out= 0)(stored 0%)
adding: WEB-INF/lib/META-INF/MANIFEST.MF(in = 72) (out= 72)(deflated 0%)
adding: WEB-INF/lib/com/(in = 0) (out= 0)(stored 0%)
adding: WEB-INF/lib/com/sun/(in = 0) (out= 0)(stored 0%)
adding: WEB-INF/lib/com/sun/gep/(in = 0) (out= 0)(stored 0%)
adding: WEB-INF/lib/com/sun/gep/GEPServlet$JobInfo.class(in = 2490) (out= 1273)(deflated 48%)
adding: WEB-INF/lib/com/sun/gep/GEPServlet$LogMonitor.class(in = 1972) (out= 1062)(deflated 46%)
adding: WEB-INF/lib/com/sun/gep/GEPServlet$SS0TokenChange.class(in = 1359) (out= 728)(deflated 46%)
adding: WEB-INF/lib/com/sun/gep/GEPServlet.class(in = 56994) (out= 25555)(deflated 55%)
adding: WEB-INF/web.xml.template(in = 3089) (out= 461)(deflated 85%)
adding: WEB-INF/web.xml(in = 3199) (out= 483)(deflated 84%)
Deleting web application
Loading new configuration
Invalid URI specified with -u option.
Deploying web application
Loading new configuration
Web application deploy successful
Do you want to install the GEPTTableContainer (y/n) [n]>> y█
```

Screen 15

18. Enter the amAdmin password as shown in Screen 16.
19. Configure Sun ONE Portal Server for GEP as shown in Screen 16. If default choice is [y], press RETURN or ENTER on the keyboard. Otherwise, type y then press RETURN or ENTER on the keyboard.



```
Console
Window Edit Options Help

Deleting web application
Loading new configuration
Invalid URI specified with -u option.
Deploying web application
Loading new configuration
Web application deploy successful
Do you want to install the GEPTabContainer (y/n) [n]>> y

Please enter the amAdmin password >>
Adding the channels. This may take some seconds. SUCCESS!
Do you want to configure Sun ONE Portal Server for GEP (y/n) [n]>> y

Configuring authentication service.
Success 0: Successfully completed.

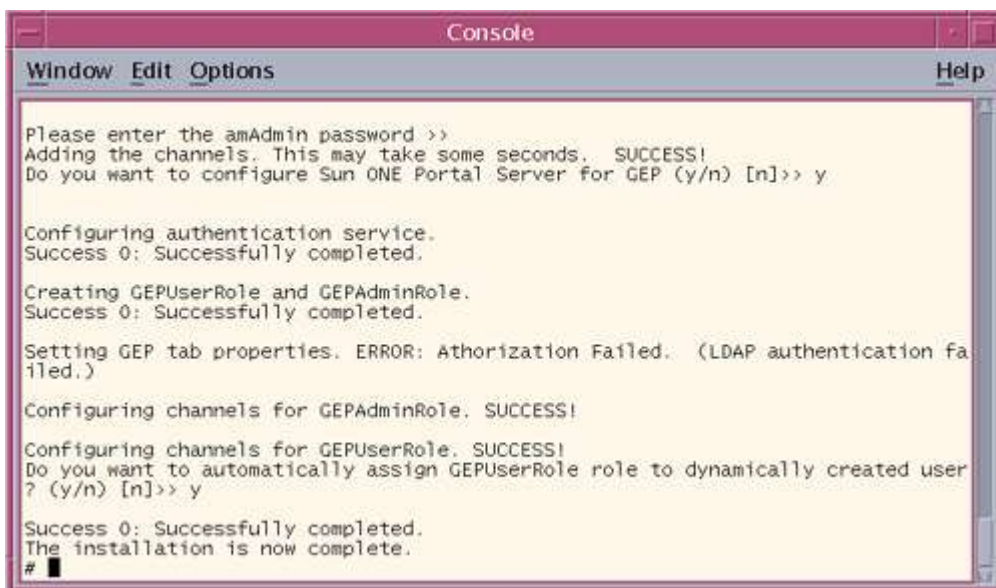
Creating GEPUserRole and GEPAdminRole.
Success 0: Successfully completed.

Setting GEP tab properties. ERROR: Athorization Failed. (LDAP authentication fa
iled.)

Configuring channels for GEPAdminRole.
```

Screen 16

20. Automatically assign GEPUserRole role to dynamically created user as shown in Screen 17. If default choice is [y], press RETURN or ENTER on the keyboard. Otherwise, type y then press RETURN or ENTER on the keyboard.



```
Console
Window Edit Options Help

Please enter the amAdmin password >>
Adding the channels. This may take some seconds. SUCCESS!
Do you want to configure Sun ONE Portal Server for GEP (y/n) [n]>> y

Configuring authentication service.
Success 0: Successfully completed.

Creating GEPUserRole and GEPAdminRole.
Success 0: Successfully completed.

Setting GEP tab properties. ERROR: Athorization Failed. (LDAP authentication fa
iled.)

Configuring channels for GEPAdminRole. SUCCESS!

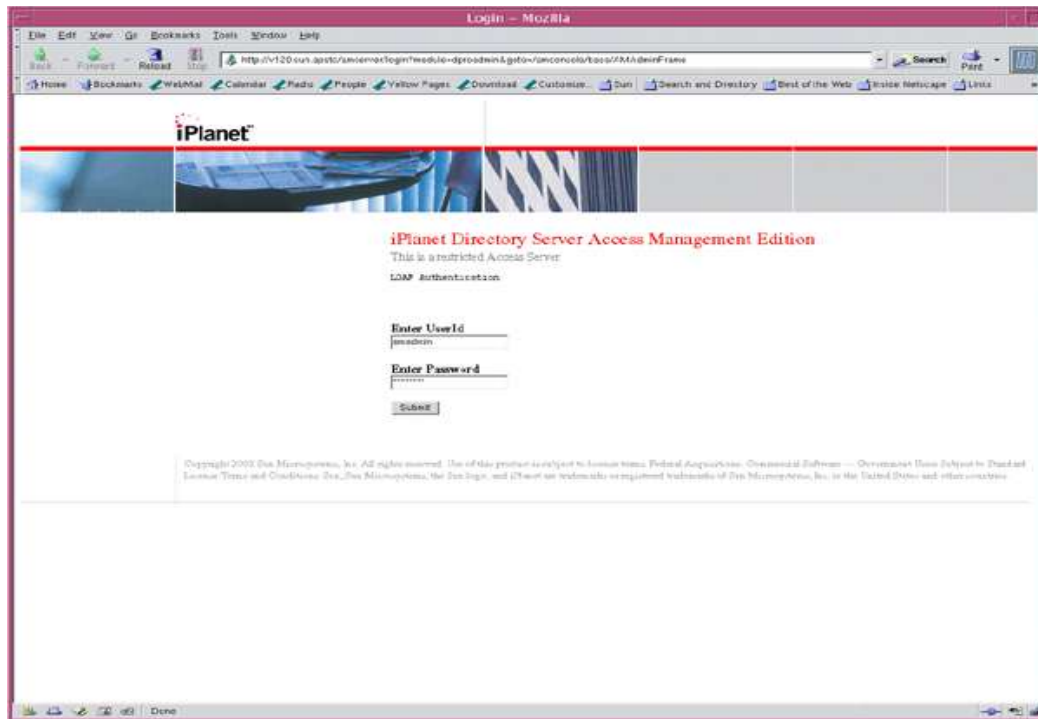
Configuring channels for GEPUserRole. SUCCESS!
Do you want to automatically assign GEPUserRole role to dynamically created user
? (y/n) [n]>> y

Success 0: Successfully completed.
The installation is now complete.
#
```

Screen 17

21. Installation of Grid Engine Portal is now complete. However to have GEP admin privileges such as adding of applications to the portal, you need to complete the remaining steps. Otherwise, You can log in the Grid Engine Portal from the URL `https://[fully qualified name]/amserver/login` e.g. `https://v120.sun.apstc/amserver/login`. As a user, you can submit and run jobs on the grid.

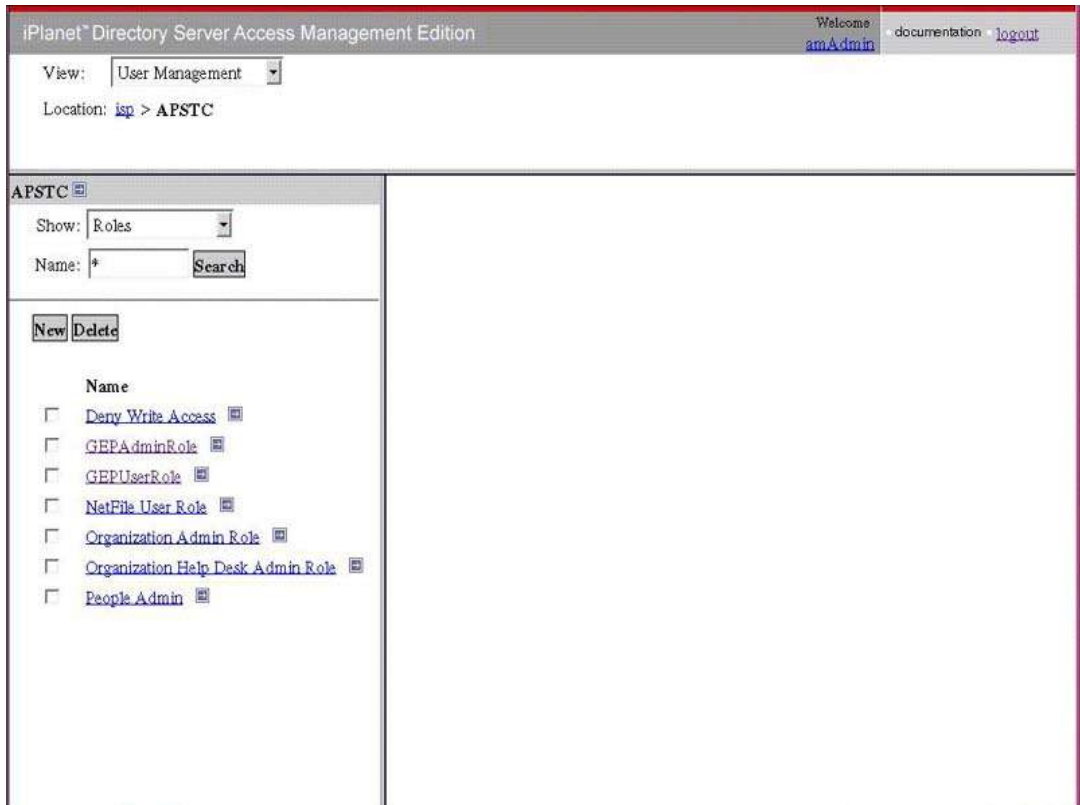
22. Open a browser and type `http://[fully qualified name]/amconsole` E.g. `http://v120.sun.apstc/amconsole` for the URL. You should see a log in screen as shown in Screen 18.



Screen 18

23. As shown in Screen 19, click on the **name of the organization** that you had

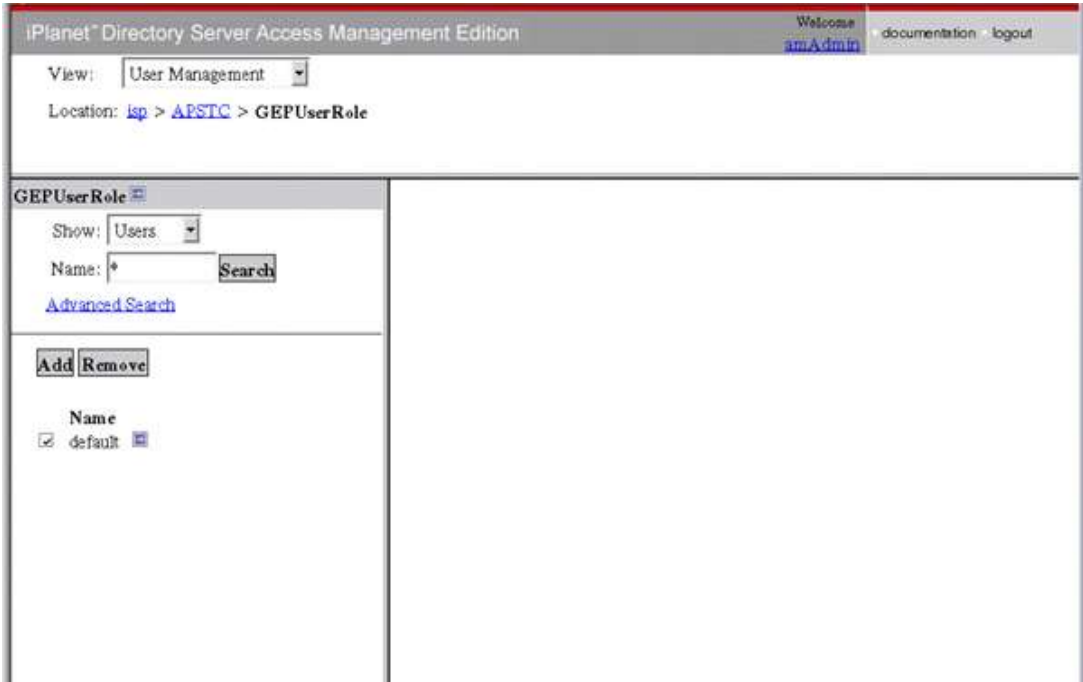
configured in earlier steps e.g. APSTC. Then select **Roles** from the **Show** drop down menu. Click on the hyperlink **GEPUserRole**.



Screen 19

24. On the left hand pane, there will be a user called **default**. Tick the checkbox beside

default and click on **Remove** as shown in Screen 20.



Screen 20

25. On the top pane, click on the **name of the organization** that you had configured in

earlier steps e.g. APSTC and click on the hyperlink **GEPAdminRole**. Then click on **Add** on the left hand pane and click on **Search** as shown in Screen 21.

The screenshot displays the iPlanet Directory Server Access Management Edition web interface. At the top, the title bar reads "iPlanet™ Directory Server Access Management Edition". On the right, there are links for "Welcome amAdmin" and "documentation logout". Below the title bar, the "View" dropdown is set to "User Management", and the "Location" breadcrumb shows "isp > APSTC > GEPAdminRole". The main content area is divided into two panes. The left pane, titled "GEPAdminRole", contains a "Show:" dropdown set to "Users", a "Name:" input field with an asterisk, a "Search" button, and a link to "Advanced Search". Below this are "Add" and "Remove" buttons and a table header "Name". The right pane, titled "Search", contains a "Logical Operator:" section with radio buttons for "OR" (selected) and "AND", a "User Status:" dropdown set to "Active", and input fields for "Full Name:", "UserId:", "Last Name:", and "First Name:". At the bottom right of the right pane are "Search" and "Reset" buttons.

Screen 21

26.As shown in Screen 22, tick the checkbox beside the **default** user and click on

Submit.

iPlanet™ Directory Server Access Management Edition

Welcome [amAdmin](#) | [documentation](#) | [logout](#)

View: User Management

Location: [isp](#) > [APSTC](#) > [GEPAdminRole](#)

GEPAdminRole

Show: Users

Name:

[Advanced Search](#)

Name

Select Users

Available Users

- ☐ isp > apstc > amAdmin
- ☐ isp > apstc > amService-srapGateway
- ☐ isp > apstc > anonymous
- ☐ isp > apstc > authlessanonymous
- ☐ isp > apstc > default

Screen 22

27.Finally click on the **arrow symbol** beside **default** on the left pane. Under the User

Section on the right pane, change the **Last Name** and **Full Name** to **gepadmin** for both fields as shown in Screen 23. Then scroll down and click on **Save**.

iPlanet™ Directory Server Access Management Edition

Welcome [amAdmin](#) | [documentation](#) | [logout](#)

View: **User Management**

Location: [isp](#) > [APSTC](#) > **GEPAdminRole**

GEPAdminRole

Show: **Users**

Name: * **Search**

[Advanced Search](#)

Add **Remove**

Name

☐ default

User

First Name:

Last Name: *

Full Name: *

Password:

Password (confirm):

Email Address:

Employee Number:

Telephone Number:

Home Address:

User Status: **Active**

LDAP

Cart

Screen 23

28. Log out of amconsole and log into the Grid Engine Portal. Type `https://[fully qualified name]/amserver/login` e.g. `https://v120.sun.apstc/amserver/login` for the URL. Log into the system using **gepadmin** as the username and password, and you can now add or delete applications from the portal.

--- End of Document ---